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rates with other telecommunication providers.

In the context of disfavoring the Commission's formulaic rate approach, UE addresses below the necessary adjustments to the various factors of the Commission's rate formula that would result in a rate that approached "just and reasonable."

**A. The First Factor -- (Space Occupied By Attachment/Total Usable Space)**

The Commission in previous rulemakings applicable only to cable television companies found that the most commonly used poles are 35 and 40 feet high with usable spaces of 11 and 16 feet, respectively. The Commission determined that 24 feet of a pole (whether 35 or 40 feet in height) is unusable because 6 feet is used to set the pole in the ground and 18 feet is necessary for ground clearance. To avoid a pole-by-pole calculation of usable space, the Commission established a rebuttable presumption that the total usable space on a pole was the arithmetic averages of 11 feet and 16 feet, or 13.5 feet.

UE strongly supports the continued use of rebuttable presumptions for pole height and of usable space. UE does not have a computerized pole data base that would easily allow it to identify the heights of the specific poles on which attachments are being placed. Therefore, unless a rebuttable presumption based on averages is used, the calculation for pole attachment rates would quickly become burdensome and unwieldy.

Next, UE believes that the 40-inch safety span required by the National Electrical Safety Code between electrical supply conductors and communication cables should not be treated as electric utility "usable space" because its function is to protect communications

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workers and the space is not usable for attaching electric supply cables.

The National Electric Safety Code ("NESC") requires generally a 40-inch space between electrical supply conductors and communication cables attached to a pole. The Commission seeks comment on how the 40-inch safety space required by the NESC should be treated for purposes of formulating the rate for pole attachments. The Commission does so, however, "on the premise that the safety space emanates from a utility's requirement to comply with the NESC and should properly be assigned to the utility as part of its usable space," as currently provided for by the Commission rules. NPRM ¶ 19.

UE believes that the Commission's starting premise is wrong. The NESC applies equally to both electrical utilities and communication utilities with pole attachments. The application of the code to both is clearly set out in its introductory provisions. Section 010 of the Code, entitled "Purpose," states in part as follows:

The purpose of these rules is the practical safeguarding of persons during the installation, operation, or maintenance of electric supply and communication lines and associated equipment.

(Emphasis added.) Section 011 of the Code, entitled "Scope," states in part as follows:

These rules cover supply and communication lines, equipment and associated work practices employed by a public or private electric supply, communications, railway, or similar utility in the exercise of its function as a utility.

(Emphasis added.) Section 012, entitled "General Rules," states in part as follows:

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- A. All electric supply and communication lines and equipment shall be designed, constructed, operated, and maintained to meet the requirements of these rules.
- B. The utilities, authorized contractors, or other entities, as applicable, performing design, construction, operation, or maintenance tasks for electric supply or communication lines or equipment covered by this code shall be responsible for meeting applicable requirements.

(Emphasis added.) Further, the Code defines a utility to be:

An organization responsible for the installation, operation, or maintenance of electric supply or communications systems.

Section 2 ("Definition of Special Terms") (emphasis added).

Thus, the Code's requirements apply equally to electric and communication utilities. Contrary to the Commission's working premise, it extends to organizations responsible for the "installation, operation or maintenance" of communication systems. Moreover, not only are communication utilities obligated to comply with the Code, but the purpose of the 40-inch safety span -- as recognized by the Commission -- is to protect communication employees that are "working on cable television or telecommunications attachments" from possibly contacting "potentially lethal electric power lines." NPRM ¶ 19.<sup>2/</sup> Communication

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<sup>2/</sup> The NESC Handbook similarly observes:

For their safety, it is intended that communications workers will not work on communication conductors, cables, or brackets located less than 1 m (40 in) below supply conductors, cables, or brackets.

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workers are not trained to work with potentially lethal electric power lines. Therefore, the Code appropriately requires the separation of electrical supply and communication lines for their protection.

Accordingly, UE submits that assignment of the 40-inch safety space to an electric utility's usable space is unsupported by the facts and wrong as a matter of policy and law. The Code applies equally to communication companies and moreover the origin of the 40-inch safety space is to ensure the protection of communication workers. Absent communication company workers, the Code would not require a 40-inch safety span, which essentially is unusable space on the pole. Therefore, the unusable space should logically be assigned to communication companies that have equipment attached to the electric utility company's pole or alternatively as either unusable pole space or common usable pole space.

In its initial rulemaking under Section 224(d) conducted 1978 to 1980 -- applicable at the time only to cable television companies -- the Commission concluded that the 40-inch safety span should be assigned to electric utilities.<sup>10/</sup> As already discussed, UE believes that the Commission's starting premise was faulty. Further, the specific reasons given by the

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National Electrical Safety Code Handbook, Fourth Edition, Allen L. Clapp, Editor, at 308 (1997) (emphasis added).

<sup>10/</sup> See Adoption of Rules for the Regulation of Cable Television Pole Attachments, Memorandum Opinion and Second Report and Order, 72 FCC 2d 59 (1979) (hereinafter "Second Report and Order"); Adoption of Rules for the Regulation of Cable Television Pole Attachments, Memorandum Opinion and Order, 77 FCC 2d 187 (1980) (hereinafter "Opinion and Order on Reconsideration").

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Commission at that time (1) are no longer applicable given the subsequent 1996 Act and (2) are based on a faulty understanding of the severely limited use made of the safety space by some electric utilities.

The Commission gave three reasons for treating the 40-inch safety space as part of an electric utility's useable space. See Second Report and Order at 69-71. First, the Commission read the 1978 legislative history of Section 224(d) as reflecting Congress' intent that cable companies would be assigned only one foot of usable pole space. Therefore, the Commission believed that it was precluded from assigning more than one foot of useable space to cable companies. Id. at 70. This rationale does not, however, apply to telecommunication carriers, authorized under the 1996 Act to make pole attachments. No legislative history dictates or suggests the amount of usable space to be allocated to telecommunication carriers. Therefore, the Commission's first rationale relied upon in its initial rulemaking under Section 224(d) does not preclude assigning all or part of the 40-inch safety span to such carriers that make attachments to an electric utility's pole.

Second, the Commission noted that under typical contracts in place at the time, the cable television operators were "responsible for all pole replacement costs necessitated by subsequent installation of additional electric or telephone lines that reduce[d] available safety space to less than 40 inches." Id. at 71. The Commission accordingly believed that, because the risk of maintaining the safety space fell on the cable companies, it would be unfair to assign the 40-inch safety zone to them as well. However, under the Commission's

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rules implementing the 1996 Act, this risk no longer falls on a cable television company or telecommunication carrier that attaches equipment to electric utility poles. Rather, the costs of increasing the height of a pole is to borne by those parties who directly benefit from the modification either by virtue of adding new attachments or modifying existing attachments.<sup>11/</sup> The Commission's rules as modified clearly state:

[A] party with a pre-existing attachment to a pole, conduit, duct or right-of-way shall not be required to bear any of the costs of rearranging or replacing its attachment if such rearrangement or replacement is necessitated solely as a result of an additional attachment or the modification of an existing attachment by another party.

47 C.F.R. § 1.1416. Thus, cable television companies or telecommunication carriers with pre-existing attachments other than in reserve space, that do not benefit from an increase in pole height are not responsible for costs associated with increasing the pole's height. Therefore, the second rationale relied upon by the Commission in its initial rulemaking under Section 224(d) to assign the 40-inch safety zone to the electric utility is no longer applicable.

Third, the Commission concluded that, because some utilities used the 40-inch safety space for the mounting of street lights, step-down distribution transformers and grounded, shielded power conductors, the space was of benefit to electrical utilities and should be assigned to them as part of their usable space. Second Report and Order at 71. Further,

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<sup>11/</sup>See May 22, 1997 Memorandum and Order, FCC 97-173.

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in ruling on arguments made on reconsideration that the 40-inch "safety space is not used as a matter of common practice," the Commission held that "[t]he issue is not whether the space is actually *used*, but whether it is *usable*" space under the definition in Section 224(d)(2). Order and Opinion on Reconsideration at 190-91, (emphasis in original). Section 224(d)(2) provides as follows:

As used in this subsection, the term 'usable space' means the space above the minimum grade level which can be used for the attachment of wires, cables and associated equipment.

The Commission reasoned that "street light brackets, transformers, and the like are 'associated equipment' within the meaning of this provision" and therefore refused to alter its initial ruling that the 40-inch safety span should be assigned to electric utilities as part of their usable space. Id. at 191.

UE believes that the Commission's rationale for concluding that the 40-inch safety space is electric utility usable space is wrong. Not only does it ignore the origin and purpose of the safety zone, discussed above, but it incorrectly portrays the limited use of the 40-inch safety zone by electric utilities in several respects. First, the Code is clear that no current carrying supply conductors can be located closer than 40-inches to communications conductors and supply equipment. NESC § 238A and B and Table 238-1. The Code makes a limited exception only for non-current carrying equipment, such as grounded conductors, where the "equipment are effectively grounded consistently throughout well-defined areas."

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NESC, Table 238-1, footnote 1 (emphasis added); see also NESC Handbook at 308.<sup>12/</sup> Even then, the Code allows the distance between such effectively grounded non-current carrying equipment and communication conductors and equipment to be reduced to only 30 inches. Id. No electrical equipment (other than street lights which the Code recognizes as an entirely separate category of equipment for separation purposes) can be located closer than 30 inches to communications conductors and supply equipment.<sup>13/</sup>

Thus, no current carrying supply conductors can be located within the 40-inch safety zone. Within the top 10-inches of the safety zone an electric utility may locate limited, non-current carrying equipment provided that it is effectively grounded consistently throughout

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<sup>12/</sup>NESC Handbook states:

[C]ommunications workers cannot be expected to determine by inspection whether supply equipment is grounded. It is expected that areas where grounding of supply equipment is practiced will be *well defined* and *made known* if the lesser clearances permitted by Footnote 1 are to be employed.

NESC Handbook at 308 (emphasis in original).

<sup>13/</sup>Street lights (referred to as "luminaries" in the Code) are recognized as a special category of equipment under the Code because the height at which they are attached to the pole is often dictated by local ordinance. Therefore, utilities may be required to locate street heights at virtually any location on the pole. The Code therefore prescribes special safety rules for street lights which, if implemented, allows them to be located close to communication conductors and equipment in the event local ordinance requires their location within the 40-inch safety zone. See NESC §§ 238C and D; NESC Handbook at 309 ("This rule is intended to recognize that some communities require certain luminaire heights that would ordinarily violate the communication space requirements."). Therefore, the location of street lights within the safety zone is irrelevant in terms of whether the safety zone constitutes useable space.



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a well-defined area. The type of equipment placed there by UE includes transformer cases and capacitor racks.

This equipment is no different than the type of ancillary equipment that telephone companies typically maintain in unusable space located below their communication conductors. Telephone companies are typically assigned the lower part of the usable space on a pole. They often place related equipment, such as power supplies, below their communication conductors on unusable space below the minimum grade level. Such items as connection terminals and coils are mounted on poles below the telephone cable occupying space categorized as unusable. Such items as connection terminals and coils are mounted on poles below the telephone cable, occupying space categorized as unusable. Therefore, the location of such non-current carrying equipment by UE and other utilities within the top 10 inches of the safety zone should not result in that space being declared usable electric utility space.

In its Order and Opinion on Reconsideration, the Commission made reference to the definition of usable space in Section 224(d)(2) as requiring assignment of the 40-inch safety zone to electric utilities, whether used or not used, because it was usable. However, as discussed above, the bottom 30 inches of the safety zone is not useable for supply conductors or associated equipment. Therefore, the bottom 30 inches certainly should not be considered usable electric utility space even under the Commission's rationale in its Order and Opinion on Reconsideration. Although the top 10 inches is arguably usable

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space under that rationale, as noted the type of equipment utilities may maintain there is no different than the type of equipment telephone companies maintain in unusable space below their communication conductors, and therefore should be treated the same.

Further, UE submits that the Commission should consider this issue in light of the future rulemaking for rates to be charged under Section 224(e). The definition of usable space in Section 224(d)(2) is limited to subsection 224(d) and is not applicable to Section 224(e).

In sum, the 40-inch safety zone is unusable space on the pole and should be treated by the Commission as such. Neither electric power supply nor communication "wires or cables" can be attached in this 40-inch safety span. To the extent the Commission deems compelled to treat part or all of this space as usable space under Section 224(d) by virtue of the definition in Section 224(d)(3), this usable space should be allocated equally as common usable space among telecommunication carriers and the electric utility with attachments on the pole.

**B. The Second Factor -- Cost of a Bare Pole**

For electric utilities, the Commission has previously applied the following formula for the net cost of a bare pole:

$$\begin{array}{lcl} \text{Net Cost of a} & = & \frac{.85 \times \text{Net Pole Investment}}{\text{Bare Pole} \qquad \qquad \text{Number of Poles}} \end{array}$$

NPRM ¶10. The Commission has requested comments on whether poles of 30 feet or less

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should be included in the calculation of pole costs; whether that calculation should be based on net or gross costs; and what accounts should be included in the calculation. NPRM ¶¶18, 20, 29. These issues are addressed in turn below.

1. Should Poles of 30 feet or less Be Included or Excluded

The Commission seeks comment on a recommendation in the white paper filed by several electrical utilities to exclude poles of 30 feet or less both from the pole investment costs in the numerator and the number of poles in the denominator by the above equation. Specifically, the Commission seeks comment on "whether including these smaller poles in the numerator and denominator of the cost of bare pole calculation results in a distorted determination of the actual costs of a bare pole . . . and whether poles of 30 feet or less lack a sufficient amount of usable space to accommodate multiple attachments." NPRM ¶ 20.

When used as distribution poles to transmit electricity to service points, poles of 30 feet or less generally lack a sufficient amount of usable space to accommodate multiple attachments. Distribution supply conductors occupy the entire usable space of such poles. Accordingly, to include the cost and number of such 30-foot poles in calculating net pole costs distorts the actual cost of distribution poles to which multiple pole attachments are made, resulting in underestimating the true average costs of such poles. Accordingly, the Commission should allow utilities which maintain records that allow segregation of pole investment costs by pole height, such as that maintained by UE to exclude both the costs and the numbers of 30-foot poles from the above equation when calculating net pole cost

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for distribution poles.

It is true that poles of 30 feet or less are also used as service lines (i.e., to transmit electricity from distribution lines to individual users) and, when so used, have different spacing requirements than distribution lines. Multiple attachments can be made to service line poles of 30 feet or less (except for small service poles of 5 feet or less) and are made to such poles. However, the usable and other than usable space and the percentages of usable space assigned to various attaching entities differs from the rate methodology developed for distribution poles. The Commission should therefore allow utilities the option to separate service poles with attachments into a different rate category with pole attachment charges based on the utility's costs for such poles, either based on segregable company cost records or cost studies for such poles.

2. Gross Book Versus Net Book Costs

In the NPRM, the Commission seeks comment on how to resolve the problem of negative book value when accumulated depreciation balances (including the cost of removal or negative net salvage value) exceeds gross pole investment. The Commission proposes to remove the negative net salvage value, from accumulated depreciation, but would make this adjustment only after the net asset balance for poles has become negative. NPRM ¶¶ 21-25. Alternatively, the Commission seeks comment on calculating pole attachment rates using "gross book costs instead of net book costs." NPRM ¶ 29.

UE believes that the Commission should utilize gross book costs for calculating pole

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attachment rates. Such an approach would avoid entirely the potential problem of unrealistically low or negative net asset balance for poles as well as simplify the rate computation. UE supports the gross book methodology proposed by EEI/UTC, which would result in a levelized (fixed) charge rate for capital pole investment. Such an approach has an advantage over a net cost basis in that it results in rates that would remain relatively constant over time. Also, using a gross cost rate methodology is overall more straightforward, and particularly is more straightforward than trying to determine when and how to back out negative net salvage value from the depreciated pole cost.

3. Accounts To Be Used In Calculating Pole Investment

Under the Commission's current rate formula, pole investment cost is calculated based solely on FERC account 364 ("Poles, tower and fixtures").<sup>14/</sup> FERC account 364 includes "the cost installed of poles, towers, and appurtenant fixtures used for supporting overhead distribution conductors and service wires." 18 C.F.R. Pt. 101, Acct. 364. There are, however, other FERC accounts that contain pole related investment costs that should be included in the numerator component of the calculation of the cost of a bare pole. These include the following:

FERC Account 365 ("Overhead conductors and devices"): This account includes the costs of lightning arrestors and ground installations. This equipment serves to protect the

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<sup>14/</sup>See, Amendment of Rules and Policies Governing the Attachment of Cable Television Hardware to Utility Poles, Report and Order, 2 FCC Rcd 4387, 4402 (1987)

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pole and its attachments and therefore provides a direct benefit to other entities attaching lines and equipment to the pole. Lightning arrestors and ground installations are analogous to guys and anchors, which the Commission previously held "are required to stabilize the pole plant and are therefore pole-related" costs properly included in Section 224(d) rates.<sup>15/</sup> Lightning arrestors installed by an electric utility provide protection from voltage surges to both electric supply and communication cables attached to the pole. Further, cable television and telecommunication companies that make attachments to a utility's poles directly attach the grounding system for their equipment to the electric utility's multi-grounded neutral system for the pole. Accordingly, a utility's cost for installing lightning arrestors and grounding installations should be included in computing pole costs.<sup>16/</sup>

FERC Account 365 also includes other pole-related costs, in particular initial tree clearing and related permit costs, that should be included in calculating Section 224(d) rates. Initial tree clearing and related costs are plainly part of the capital investment cost for installing the pole and therefore properly included in Section 224(d) rates.

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<sup>15/</sup>Id. at 4390.

<sup>16/</sup>In the NPRM, the Commission states its agreement that the cost for lightning arrestors and grounding equipment installed to protect poles should be included in the calculation of the net cost of a bare pole. NPRM ¶ 18. But, the Commission goes on to claim that such costs are already part of the calculation. NPRM ¶ 18 and note 55. That is, however, incorrect. FERC Account 365 ("Overhead conductors and devices") referred to by the Commission in note 55 of the NPRM is not included in the formula for net cost allocation as set out in the Commission's latest rulemaking. See 2 FCC Rcd at 4402. The Commission's formula for net bare pole cost set forth there utilizes only FERC Account 364. Id.

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Accordingly, an appropriate percentage of FERC Account 365 attributable to lightning arrestors, grounding installation and initial tree clearing and related costs should be included in the numerator component of the calculation of the cost of a bare pole. While Union Electric does not have specific information in hand to determine an appropriate percentage, it believes it can either perform such a study or can support work to determine a credible percentage.

FERC Account 397 ("Communication equipment"): This account includes the cost of installed communications equipment for "general use in connection with utility operations." Such equipment plays a major role in maintaining pole distribution lines. For example, such equipment is used to communicate to work crews the location of down or damaged poles so that repairs can be quickly made. Thus, this equipment benefits cable television and telecommunication companies with pole attachments and some portion of the capital cost of this equipment should be included in calculating pole costs.

UE believes that the allocable portion of the above FERC accounts should be included in computing pole-related investment costs. Further, as a general matter, UE believes that the Commission's rate methodology should allow utilities to include costs in the computation of pole costs based on appropriate cost studies or other appropriate analytical justification. Such an approach would allow individual utilities to include significant costs that may be unique to them.

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**C. Carry Charge Rate**

The Commission's total carrying charge rate is comprised of the sum of individual components for administrative expenses, maintenance expenses, depreciation expenses, taxes and return on invested capital. In the NPRM, the Commission requests comments on maintenance expenses and return on invested capital, to which UE responds. In addition, UE believes that an additional component for general operating expenses should be added to the carrying charge rate.

**1. Maintenance Expenses Attributable To Poles**

Currently the sole expense category picked up by the Commission's formula for calculating the maintenance expense component of the carry charge rate is FERC Account 593 ("Maintenance of overhead lines (Major only)"). In the NPRM, the Commission requests comments on whether a portion of FERC Account 590 ("Maintenance supervision and engineering (Major only)") should also be included in computing the maintenance expense component. NPRM ¶ 35.

UE agrees that a significant portion of the expenses in Account 590 -- which captures the cost of labor and expenses incurred in the general supervision and direction of maintenance of the distribution system -- should be included in this computation. Distribution poles constitute a major part of the distribution system and therefore UE believes that a major portion of this account should be allocable to pole maintenance.

In addition, UE believes that a significant percentage of Account 594.1



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("Maintenance of lines (Non-major only)") should also be included. This account includes the cost of "labor, materials used and expenses incurred in the maintenance of distribution line facilities," including electric poles and related equipment. Items identified in the Account include, as an example, "[r]eadjusting and changing position guys or braces" and "[r]ealigning and straightening poles," which directly benefit the pole and the various attachments to the pole.

Again, UE firmly believes, as stated above, that the Commission's rate methodology should allow utilities to identify and include other costs based on cost studies or other appropriate analytical justification.

2. Operational Costs

UE believes that the carrying charge rate should include a component to capture the operational costs of the pole distribution network. Allocable portions of the following FERC Accounts should be included in this component:

FERC Account 580 ("Operation supervision and engineering"). This account includes the cost of labor and expenses incurred with general supervision and direction of the operation of the distribution system.

FERC Account 583 ("Overhead line expenses (Major only)"). This account includes the cost of labor, materials used and expenses incurred in the operation of overhead distribution lines.

FERC Account 588 ("Miscellaneous distribution expenses"). This account includes

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the cost of labor, materials used and expenses incurred in distribution system operation not provided for elsewhere. While Union Electric has not computed specific percentage allocation to be included in the carrying charges, the entity attaching to Union Electric poles here benefits from all activities and expenses UE incurs in operating its distribution system. Accordingly, some portion of these operating expenses should be included in the rate charged to any party securing a pole attachment.

Again, UE believes, as stated above, that the Commission's rate methodology should allow utilities to identify and include other costs based on cost studies or other appropriate analytical justification.

### 3. The Cost of Capital or Rate of Return

For this element of the carrying charges, the Commission currently uses the rate of return authorized for a utility's intrastate services. Given the deregulation of the utility industry, the Commission seeks comment on "what rate of return" should be used for utilities that operate in states that no longer regulate on a rate of return basis. NPRM ¶ 37. The Commission notes that it has adopted a rate of return for telephone companies of 11.25% and requests comment whether this same rate should be applied uniformly. Id. UE agrees that 11.25% is an appropriate rate to use.

## IV. CONCLUSION


For the foregoing reasons, the Commission should adopt market-based rates for electric conduit and pole attachments or, in the event it chooses not to adopt market-

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based rates, the Commission should adopt the rate methodologies set forth in these comments.

Respectfully submitted,

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